TSMC-03-299

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February 9, 2004

Commissioner for Patents P.O.Box 1450 Alexandria, VA 22313-1450

Fr: George O. Saile, Reg. No. 19,572 28 Davis Avenue Poughkeepsie, N.Y. 12603

Subject:

| Serial No. 10/714,985 11/17/03 |

William Hong et al.

COPPER CMP DEFECT REDUCTION BY EXTRA SLURRY POLISH

INFORMATION DISCLOSURE STATEMENT

Enclosed is Form PTO-1449, Information Disclosure Citation
In An Application.

The following Patents and/or Publications are submitted to comply with the duty of disclosure under CFR 1.97-1.99 and 37 CFR 1.56.

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on February , 2004.

Stephen B. Ackerman, Reg.# 37761

Signature/Date Stephen Backer 2/12/04

- U.S. Patent 6,503,828 to Nagahara et al., "Process for Selective Polishing of Metal-Filled Trenches of Integrated Circuit Structures," describes a method to prevent dishing.
- U.S. Patent 6,395,635 to Wang et al., "Reduction of Tungsten Damascene Residue," discusses a three step CMP process followed by a two step buffing procedure applied to a dielectric layer to reduce residue and scratch defects on a tungsten damascene structure.
- U.S. Patent 6,153,526 to Shih et al., "Method to Remove Residue in Wolfram CMP," discloses a method for removing residue in a tungsten CMP process.
- U.S. Patent 6,432,826 to Emami et al., "Planarized Cu Cleaning for Reduced Defects," discloses a planarizing method for copper with reduced defects.

Co-pending U.S. Patent TSMC-02-992, "An Advanced Process Control Approach for Cu Interconnect Wiring Sheet Resistance Control," Serial # 10/723,236, filed on 11/26/03, assigned to the same assignee, discusses a method of performing a chemical mechanical polishing step on copper wiring with a higher degree of process control to enable copper sheet resistance to be minimized.

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Co-pending U.S. Patent TSMC-03-424, "Barrier-Slurry-Free Copper CMP Process," Serial # 10/627,795, filed on 7/25/03, assigned to a common assignee, discusses a method of reducing the number of defects on a substrate following a chemical mechanical polishing (CMP) step of a copper interconnect structure.

Sincerely,

Stephen B. Ackerman

Reg. No. 37761

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.